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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,377	09/03/2003	Luciano M. Parrinello	1748P1	4183

7590 07/27/2005

PPG Industries, Inc.  
Law-Intellectual Property 39 SW  
One PPG Place  
Pittsburgh, PA 15272

EXAMINER
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SASTRI, SATYA B

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/654,377

Applicant(s)

PARRINELLO ET AL.

Examiner

Satya B. Sastri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-62 and 78 is/are pending in the application.
- 4a) Of the above claim(s) 24-61 and 78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-62, 78 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/21/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. This office action is in response to application filed on September 03, 2003. *Claims 1-62, 78*

are now pending in the application.

2. Applicant's election without traverse of Group I invention, *claims 1-23, 62* in the reply filed on June 9, 2005 is acknowledged. Accordingly, *claims 24-61, 78* are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. *Claims 1-23, 62* are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The instant claims as recited do not necessarily distinguish components (b) and (c) because a cationic acrylic polymer can serve as both (b) and (c).

### *Claim Rejections - 35 USC § 102 and 103*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. *Claims 1-23, 62* are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (US 6,866,383 B2) in view of Schliesman et al. (US 6,656,545 B1).

Prior art to Naik et al. concerns ink-receptive compositions comprising filler, a binder and a cationic polymer, wherein the composition when coated on a substrate forms an ink-receptive coating (abstract). In an embodiment disclosed, the binder composition is a combination of polyurethane and a polyacryl wherein, the polyurethane may be present in amount of about 10% to about 90% and the polyacryl in amount of 90% to 10% of the solids of the coating composition (column 9, lines 52-55). The disclosed polyurethane is typically derived from a polyisocyanate and polyol (column 6, lines 6-8) and the isocyanate reactive group may be of cationic, anionic or nonionic type (column 7, lines 1-25). Polyacryl includes polyacrylates, polyacrylics or polyacrylamides (column 8, lines 45-67). The coating composition

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may also contain a cationic polymer to fix acid dye colorants in water-based inks and disclosed examples include amine-epichlorohydrin resin, polyethyleneamine, polyacrylamide with cationic functional groups. The molecular weight of the cationic polymer may be within the range of 3,000 to 100,000 and the concentration of such cationic polymer is within a range of 0.001% to about 20% by weight of the solid content of the composition (column 11, lines 8-27, 39-59).

The instant invention differs from the prior art in that the prior art is silent with respect to the pH of the composition.

Secondary reference to Schliesman et al. is in an analogous field of coating composition for an inkjet recording medium comprising a pigment, binder and a cationic fixing agent (abstract). The coating may be applied to both sides of a substrate. Additionally, the prior art discloses that low pH values of 4.5 to 7.5 are useful in improved ink holdout (column 1, lines 50-60). The prior art discloses compositions based on fixing agents such as acrylamideacrylic polymers and compatible binders including those disclosed in the primary reference. The prior art explicitly teaches that cationic fixing agents are effective at low pH conditions (4.5 to 7.5), but become less effective at alkaline pH values (column 4, lines 19-52). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate the topcoat compositions of Naik et al. such that the pH is in the range of 4.5 to 7.5 and thereby obtain the instant invention.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the


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examiner should be directed to Satya Sastri at (571) 272 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

July 22, 2005



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER